Designation: D 3777 – 97 (Reapproved 2002)

Standard Practice for Writing Specifications for Textiles[1]

This standard is issued under the fixed designation D 3777; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers general methods for specifying textile product characteristics that may be measured or counted.

1.2 There are many different types of acceptance samplings plans. This practice describes five types. (See 1.5.)

1.3 This practice describes general methods for writing the sampling plans of the types named in 1.5 whose characteristics may be measured or counted. The requirements are described in terms of what the basic unit is and what limit constitutes a nonconforming item. Tables are provided from which appropriate sampling plans can be designed. Numerical examples illustrate the design of sampling plans and the construction of their consequent operating characteristic curves.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.5 This practice includes the following sections:

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1.6 The annexes include:

Topic Title	Annex Number
Types of Sampling Plans:	
Single-Sample Fraction-Nonconforming Attribute Data	Annex A1
Single-Sample Nonconformances-per-Unit	Annex A2
Single-Sample by Variables to Control Fraction-Nonconforming with Standard Deviation Known	Annex A3
Single-Sample by Variables to Control Fraction-Nonconforming with Standard Deviation Unknown	Annex A4
Chain Sampling	Annex A5

2. Referenced Documents

2.1 *ASTM Standards:*

D 123 Terminology Relating to Textiles[2]

D 2906 Practice for Statements on Precision and Bias for Textiles[2]

D 4271 Practice for Writing Statements on Sampling in Test Methods for Textiles[3]

2.2 *Adjunct*

TEX-PAC[4]

NOTE 1—Tex-Pac is a group of PC programs on floppy disks, available through ASTM Headquarters, 100 Barr Harbor Drive, West Conshohocken, PA 19428, USA. The points on the operating characteristic (OC) curves described in the Annexes of this Standard can be calculated using programs in this adjunct.

2.3 *Other Standards:*

ANSI/ASQC Z1.4 Sampling Procedures and Tables for Inspection by Attributes[5]

MIL-STD-105D Sampling Procedures and Tables for Inspection by Attributes[6]

MIL-STD-414 Sampling Procedures and Tables for Inspection by Variables by Percent Defective[6]

Tables of the Binomial Probability Frequency Distribution (No. 6 Of the Applied Mathematics Series), National Institute of Standards and Technology (NIST)[7]

3. Terminology

3.1 *Definitions:*

3.1.1 *acceptable quality level, (AQL or p_1), n—in acceptance sampling,* the maximum fraction of nonconforming items

[1] This practice is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.93 on Statistics.

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[2] *Annual Book of ASTM Standards*, Vol 07.01.

[3] *Annual Book of ASTM Standards*, Vol 07.02.

[4] PC programs on floppy disks are available through ASTM. For 3½ inch disk request PCN:12-429040-18, for a 5¼ inch disk request PCN:12-429041-18.

[5] American Society for Quality Control, 230 West Wells Street, Milwaukee, WI 53203.

[6] Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

[7] Available from National Institute of Standards and Technology, NIST, Gaithersburg, MD 20899.

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